

## SEQUENCE LISTING

<110> Bertin, John

<120> NOVEL MOLECULES OF THE CARD-RELATED  
PROTEIN FAMILY AND USES THEREOF

<130> 07334-076001

<140> 09/099,041

<141> 1998-06-17

<150> 09/019,942

<151> 1998-02-06

<160> 37

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<211> 1931

<212> DNA

<213> Homo sapiens

<220>

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<222> (214) ... (1833)

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Trp Arg Val Gln Val Ala Val Lys His Leu His Ile His Thr Pro Leu
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Ala Val Ile Thr Trp Glu Val Leu Ser Arg Lys Gln Pro Phe Glu Asp	
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Glu	Asp	Tyr	Glu	Leu	Val	Ser	Thr	Lys	Pro	Thr	Arg	Thr	Ser	Lys	Val	
			475					480					485			
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Arg	Gln	Leu	Leu	Asp	Thr	Thr	Asp	Ile	Gln	Gly	Glu	Glu	Phe	Ala	Lys	
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1931

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&lt;211&gt; 540

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2

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Ser Gln Arg Ala Ala Phe Cys Asp His Lys Thr	Ile Pro Cys Ser Ser	400
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Pro Gly Ile Ala Gln Gln Trp Ile Gln Ser Lys	Arg Glu Asp Ile Val	430
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Asn Gln Met Thr Glu Ala Cys Leu Asn Gln Ser	Leu Asp Ala Leu Leu	445
	450	455
Ser Arg Asp Leu Ile Met Lys Glu Asp Tyr Glu	Leu Val Ser Thr Lys	460
465	470	475
Pro Thr Arg Thr Ser Lys Val Arg Gln Leu Leu	Asp Thr Thr Asp Ile	480
	485	490
Gln Gly Glu Glu Phe Ala Lys Val Ile Val Gln	Lys Leu Lys Asp Asn	495
	500	505
Lys Gln Met Gly Leu Gln Pro Tyr Pro Glu Ile	Leu Val Val Ser Arg	510
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Ser Pro Ser Leu Asn Leu Leu Gln Asn Lys Ser	Met	525
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		540

&lt;210&gt; 3

&lt;211&gt; 1620

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

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Ser	Ser	Ala	Arg	His	Ala	Asp	Trp	Arg	Val	Gln	Val	Ala	Val	Lys	His
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Leu	His	Ile	His	Thr	Pro	Leu	Leu	Asp	Ser	Glu	Arg	Lys	Asp	Val	Leu
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Arg	Glu	Ala	Glu	Ile	Leu	His	Lys	Ala	Arg	Phe	Ser	Tyr	Ile	Leu	Pro
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Ile	Leu	Gly	Ile	Cys	Asn	Glu	Pro	Glu	Phe	Leu	Gly	Ile	Val	Thr	Glu
				85				90						95	
Tyr	Met	Pro	Asn	Gly	Ser	Leu	Asn	Glu	Leu	Leu	His	Arg	Lys	Thr	Glu
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Tyr	Pro	Asp	Val	Ala	Trp	Pro	Leu	Arg	Phe	Arg	Ile	Leu	His	Glu	Ile
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Ala	Leu	Gly	Val	Asn	Tyr	Leu	His	Asn	Met	Thr	Pro	Pro	Leu	Leu	His
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Tyr	Asp	Ile	Pro	His	Arg	Ala	Arg	Met	Ile	Ser	Leu	Ile	Glu	Ser	Gly
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 <213> Homo sapiens

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Leu	Asn	Ile	Pro	Val	Asn	His	Gly	Pro	Gln	Glu	Glu	Ser	Cys	Gly	Ser
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Tyr	Phe	Met	Lys	Leu	His	His	Cys	Pro	Gly	Asn	His	Ser	Trp	Asp	Ser
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Thr	Ile	Ser	Gly	Ser	Gln	Arg	Ala	Ala	Phe	Cys	Asp	His	Lys	Thr	Ile
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Pro	Cys	Ser	Ser	Ala	Ile	Ile	Asn	Pro	Leu	Ser	Thr	Ala	Gly	Asn	Ser
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Glu	Arg	Leu													
130															

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 <212> PRT  
 <213> Homo sapiens

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Leu Ser Arg Asp Leu Ile Met Lys Glu Asp Tyr Glu Leu Val Ser Thr
35 40 45
Lys Pro Thr Arg Thr Ser Lys Val Arg Gln Leu Leu Asp Thr Thr Asp
50 55 60
Ile Gln Gly Glu Glu Phe Ala Lys Val Ile Val Gln Lys Leu Lys Asp
65 70 75 80
Asn Lys Gln Met Gly Leu Gln Pro Tyr Pro Glu Ile Leu Val Val Ser
85 90 95
Arg Ser Pro Ser Leu Asn Leu Leu Gln Asn Lys Ser Met
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ctgctgagag gacacacgca gctgaagatg aatttgggaa aagtagccgc ttgctacttt	240
aact atg gaa gag cag ggc cac agt gag atg gaa ata atc cca tca gag	289
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1 5 10 15	
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Ser His Pro His Ile Gln Leu Leu Lys Ser Asn Arg Glu Leu Leu Val	
20 25 30	
act cac atc cgc aat act cag tgt ctg gtg gac aac ttg ctg aag aat	385
Thr His Ile Arg Asn Thr Gln Cys Leu Val Asp Asn Leu Leu Lys Asn	

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gag gag gtg tcc gag ttc ttc ctc tac ttg ctc cag caa ctc gca gat Glu Glu Val Ser Glu Phe Phe Leu Tyr Leu Leu Gln Gln Leu Ala Asp 80 85 90 95			529
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<210> 10  
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 <212> PRT  
 <213> Homo sapiens

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<400> 10
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Val Thr His Ile Arg Asn Thr Gln Cys Leu Val Asp Asn Leu Leu Lys
20          25          30
Asn Asp Tyr Phe Ser Ala Glu Asp Ala Glu Ile Val Cys Ala Cys Pro
35          40          45
Thr Gln Pro Asp Lys Val Arg Lys Ile Leu Asp Leu Val Gln Ser Lys
50          55          60
Gly Glu Glu Val Ser Glu Phe Phe Leu Tyr Leu Leu Gln Gln Leu Ala
65          70          75          80
Asp Ala Tyr Val Asp Leu Arg Pro Trp Leu Leu Glu Ile Gly Phe Ser
85          90          95
Pro Ser Leu Leu
100

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<210> 11  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

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<400> 11
Ile Phe Ile Leu Gly Asp Ala Gly Val Gly Lys Ser Met Leu Leu Gln
1          5          10          15
Arg Leu Gln Ser Leu Trp Ala Thr Gly Arg Leu Asp Ala Gly Val Lys
20          25          30
Phe Phe Phe His Phe Arg Cys Arg Met Phe Ser Cys Phe Lys Glu Ser
35          40          45
Asp Arg Leu Cys Leu Gln Asp Leu Leu Phe Lys His Tyr Cys Tyr Pro
50          55          60
Glu Arg Asp Pro Glu Glu Val Phe Ala Phe Leu Leu Arg Phe Pro His
65          70          75          80
Val Ala Leu Phe Thr Phe Asp Gly Leu Asp Glu Leu His Ser Asp Leu

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				85					90					95			
Asp	Leu	Ser	Arg	Val	Pro	Asp	Ser	Ser	Cys	Pro	Trp	Glu	Pro	Ala	His		
				100				105					110				
Pro	Leu	Val	Leu	Leu	Ala	Asn	Leu	Leu	Ser	Gly	Lys	Leu	Leu	Lys	Gly		
				115				120					125				
Ala	Ser	Lys	Leu	Leu	Thr	Ala	Arg	Thr	Gly	Ile	Glu	Val	Pro	Arg	Gln		
				130				135					140				
Phe	Leu	Arg	Lys	Lys	Val	Leu	Leu	Arg	Gly	Phe	Ser	Pro	Ser	His	Leu		
145					150					155					160		
Arg	Ala	Tyr	Ala	Arg	Arg	Met	Phe	Pro	Glu	Arg	Ala	Leu	Gln	Asp	Arg		
				165					170					175			
Leu	Leu	Ser	Gln	Leu	Glu	Ala	Asn	Pro	Asn	Leu	Cys	Ser	Leu	Cys	Ser		
			180					185					190				
Val	Pro	Leu	Phe	Cys	Trp	Ile	Ile										
			195				200										

<210> 12  
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 <213> Homo sapiens

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 Gly Asp Ala Gly Val Gly Lys Ser  
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<210> 13  
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<400> 13  
 Leu Phe Thr Phe Asp  
 1 5

<210> 14  
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 <212> PRT  
 <213> Homo sapiens

<400> 14  
 Ser Lys Leu Leu Thr Ala Arg Thr Gly Ile Glu Val  
 1 5 10

<210> 15  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<400> 15  
 Gly Ile Cys Ala Asn Tyr Leu Lys Leu Thr Tyr Cys Asn Ala Cys Ser  
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 Ala Asp Cys Ser Ala Leu Ser Phe Val Leu His His  
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 <212> PRT

<213> Homo sapiens

<400> 16

Phe	Pro	Lys	Arg	Leu	Ala	Leu	Asp	Leu	Asp	Asn	Asn	Asn	Leu	Asn	Asp
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Tyr	Gly	Val	Arg	Glu	Leu	Gln	Pro	Cys	Phe						
			20					25							

<210> 17

<211> 27

<212> PRT

<213> Homo sapiens

<400> 17

Ser	Arg	Leu	Thr	Val	Leu	Arg	Leu	Ser	Val	Asn	Gln	Ile	Thr	Asp	Gly
1				5				10						15	
Gly	Val	Lys	Val	Leu	Ser	Glu	Glu	Leu	Thr	Lys					
			20					25							

<210> 18

<211> 28

<212> PRT

<213> Homo sapiens

<400> 18

Tyr	Lys	Ile	Val	Thr	Tyr	Leu	Gly	Leu	Tyr	Asn	Asn	Gln	Ile	Thr	Asp
1				5				10							15
Val	Gly	Ala	Arg	Tyr	Val	Thr	Lys	Ile	Leu	Asp	Glu				
			20					25							

<210> 19

<211> 28

<212> PRT

<213> Homo sapiens

<400> 19

Cys	Lys	Gly	Leu	Thr	His	Leu	Lys	Leu	Gly	Lys	Asn	Lys	Ile	Thr	Ser
1				5				10						15	
Glu	Gly	Gly	Lys	Tyr	Leu	Ala	Leu	Ala	Val	Lys	Asn				
			20					25							

<210> 20

<211> 28

<212> PRT

<213> Homo sapiens

<400> 20

Ser	Lys	Ser	Ile	Ser	Glu	Val	Gly	Met	Trp	Gly	Asn	Gln	Val	Gly	Asp
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Glu	Gly	Ala	Lys	Ala	Phe	Ala	Glu	Ala	Leu	Arg	Asn				
			20					25							

<210> 21

<211> 28

<212> PRT

<213> Homo sapiens

&lt;400&gt; 21

His Pro Ser Leu Thr Thr Leu Ser Leu Ala Ser Asn Gly Ile Ser Thr  
 1 5 10 15  
 Glu Gly Gly Lys Ser Leu Ala Arg Ala Leu Gln Gln  
 20 25

&lt;210&gt; 22

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 22

Asn Thr Ser Leu Glu Ile Leu Trp Leu Thr Gln Asn Glu Leu Asn Asp  
 1 5 10 15  
 Glu Val Ala Glu Ser Leu Ala Glu Met Leu Lys Val  
 20 25

&lt;210&gt; 23

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

Asn Gln Thr Leu Lys His Leu Trp Leu Ile Gln Asn Gln Ile Thr Ala  
 1 5 10 15  
 Lys Gly Thr Ala Gln Leu Ala Asp Ala Leu Gln Ser  
 20 25

&lt;210&gt; 24

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 24

Asn Thr Gly Ile Thr Glu Ile Cys Leu Asn Gly Asn Leu Ile Lys Pro  
 1 5 10 15  
 Glu Glu Ala Lys Val Tyr Glu Asp Glu Lys Arg Ile  
 20 25

&lt;210&gt; 25

&lt;211&gt; 3080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)...(1470)

&lt;400&gt; 25

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 His Ala Ser Asp Leu Leu Lys Asn Asp Tyr Phe Ser Ala Glu Asp Ala  
 1 5 10 15

gag att gtg tgt gcc tgc ccc acc cag cct gac aag gtc cgc aaa att 96  
 Glu Ile Val Cys Ala Cys Pro Thr Gln Pro Asp Lys Val Arg Lys Ile  
 20 25 30

ctg gac ctg gta cag agc aag ggc gag gag gtg tcc gag ttc ttc ctc Leu Asp Leu Val Gln Ser Lys Gly Glu Glu Val Ser Glu Phe Phe Leu 35 40 45	144
tac ttg ctc cag caa ctc gca gat gcc tac gtg gac ctc agg cct tgg Tyr Leu Leu Gln Gln Leu Ala Asp Ala Tyr Val Asp Leu Arg Pro Trp 50 55 60	192
ctg ctg gag atc ggc ttc tcc cct tcc ctg ctc act cag agc aaa gtc Leu Leu Glu Ile Gly Phe Ser Pro Ser Leu Leu Thr Gln Ser Lys Val 65 70 75 80	240
gtg gtc aac act gac cca gtg agc agg tat acc cag cag ctg cga cac Val Val Asn Thr Asp Pro Val Ser Arg Tyr Thr Gln Gln Leu Arg His 85 90 95	288
cat ctg ggc cgt gac tcc aag ttc gtg ctg tgc tat gcc cag aag gag His Leu Gly Arg Asp Ser Lys Phe Val Leu Cys Tyr Ala Gln Lys Glu 100 105 110	336
gag ctg ctg ctg gag gag atc tac atg gac acc atc atg gag ctg gtt Glu Leu Leu Leu Glu Glu Ile Tyr Met Asp Thr Ile Met Glu Leu Val 115 120 125	384
ggc ttc agc aat gag agc ctg ggc agc ctg aac agc ctg gcc tgc ctc Gly Phe Ser Asn Glu Ser Leu Gly Ser Leu Asn Ser Leu Ala Cys Leu 130 135 140	432
ctg gac cac acc acc ggc atc ctc aat gag cag ggt gag acc atc ttc Leu Asp His Thr Thr Gly Ile Leu Asn Glu Gln Gly Glu Thr Ile Phe 145 150 155 160	480
atc ctg ggt gat gct ggg gtg ggc aag tcc atg ctg cta cag cgg ctg Ile Leu Gly Asp Ala Gly Val Gly Lys Ser Met Leu Leu Gln Arg Leu 165 170 175	528
cag agc ctc tgg gcc acg ggc cgg cta gac gca ggg gtc aaa ttc ttc Gln Ser Leu Trp Ala Thr Gly Arg Leu Asp Ala Gly Val Lys Phe Phe 180 185 190	576
ttc cac ttt cgc tgc cgc atg ttc agc tgc ttc aag gaa agt gac agg Phe His Phe Arg Cys Arg Met Phe Ser Cys Phe Lys Glu Ser Asp Arg 195 200 205	624
ctg tgt ctg cag gac ctg ctc ttc aag cac tac tgc tac cca gag cgg Leu Cys Leu Gln Asp Leu Leu Phe Lys His Tyr Cys Tyr Pro Glu Arg 210 215 220	672
gac ccc gag gag gtg ttt gcc ttc ctg ctg cgc ttc ccc cac gtg gcc Asp Pro Glu Glu Val Phe Ala Phe Leu Leu Arg Phe Pro His Val Ala 225 230 235 240	720
ctc ttc acc ttc gat ggc ctg gac gag ctg cac tgc gac ttg gac ctg Leu Phe Thr Phe Asp Gly Leu Asp Glu Leu His Ser Asp Leu Asp Leu 245 250 255	768
agc cgc gtg cct gac agc tcc tgc ccc tgg gag cct gcc cac ccc ctg	816

Ser	Arg	Val	Pro	Asp	Ser	Ser	Cys	Pro	Trp	Glu	Pro	Ala	His	Pro	Leu	
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Val	Leu	Leu	Ala	Asn	Leu	Leu	Ser	Gly	Lys	Leu	Leu	Lys	Gly	Ala	Ser	
		275					280					285				
aag	ctg	ctc	aca	gcc	cgc	aca	ggc	atc	gag	gtc	ccg	cgc	cag	ttc	ctg	912
Lys	Leu	Leu	Thr	Ala	Arg	Thr	Gly	Ile	Glu	Val	Pro	Arg	Gln	Phe	Leu	
	290					295					300					
cgg	aag	aag	gtg	ctt	ctc	cgg	ggc	ttc	tcc	ccc	agc	cac	ctg	cgc	gcc	960
Arg	Lys	Lys	Val	Leu	Leu	Arg	Gly	Phe	Ser	Pro	Ser	His	Leu	Arg	Ala	
305					310					315					320	
tat	gcc	agg	agg	atg	ttc	ccc	gag	cgg	gcc	ctg	cag	gac	cgc	ctg	ctg	1008
Tyr	Ala	Arg	Arg	Met	Phe	Pro	Glu	Arg	Ala	Leu	Gln	Asp	Arg	Leu	Leu	
				325					330					335		
agc	cag	ctg	gag	gcc	aac	ccc	aac	ctc	tgc	agc	ctg	tgc	tct	gtg	ccc	1056
Ser	Gln	Leu	Glu	Ala	Asn	Pro	Asn	Leu	Cys	Ser	Leu	Cys	Ser	Val	Pro	
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ctc	ttc	tgc	tgg	atc	atc	ttc	cgg	tgc	ttc	cag	cac	ttc	cgt	gct	gcc	1104
Leu	Phe	Cys	Trp	Ile	Ile	Phe	Arg	Cys	Phe	Gln	His	Phe	Arg	Ala	Ala	
		355					360					365				
ttt	gaa	ggc	tca	cca	cag	ctg	ccc	gac	tgc	acg	atg	acc	ctg	aca	gat	1152
Phe	Glu	Gly	Ser	Pro	Gln	Leu	Pro	Asp	Cys	Thr	Met	Thr	Leu	Thr	Asp	
	370					375					380					
gtc	ttc	ctc	ctg	gtc	act	gag	gtc	cat	ctg	aac	agg	atg	cag	ccc	agc	1200
Val	Phe	Leu	Leu	Val	Thr	Glu	Val	His	Leu	Asn	Arg	Met	Gln	Pro	Ser	
385					390					395					400	
agc	ctg	gtg	cag	cgg	aac	aca	cgc	agc	cca	gtg	gag	acc	ctc	cac	gcc	1248
Ser	Leu	Val	Gln	Arg	Asn	Thr	Arg	Ser	Pro	Val	Glu	Thr	Leu	His	Ala	
			405						410					415		
ggc	cgg	gac	act	ctg	tgc	tgc	ctg	ggg	cag	gtg	gcc	cac	cgg	ggc	atg	1296
Gly	Arg	Asp	Thr	Leu	Cys	Ser	Leu	Gly	Gln	Val	Ala	His	Arg	Gly	Met	
			420					425					430			
gag	aag	agc	ctc	ttt	gtc	ttc	acc	cag	gag	gag	gtg	cag	gcc	tcc	ggg	1344
Glu	Lys	Ser	Leu	Phe	Val	Phe	Thr	Gln	Glu	Glu	Val	Gln	Ala	Ser	Gly	
		435					440					445				
ctg	cag	gag	aga	gac	atg	cag	ctg	ggc	ttc	ctg	cgg	gct	ttg	ccg	gag	1392
Leu	Gln	Glu	Arg	Asp	Met	Gln	Leu	Gly	Phe	Leu	Arg	Ala	Leu	Pro	Glu	
		450				455					460					
ctg	ggc	ccc	ggg	ggt	gac	cag	cag	tcc	tat	gag	ttt	ttc	cac	ctc	agc	1440
Leu	Gly	Pro	Gly	Gly	Asp	Gln	Gln	Ser	Tyr	Glu	Phe	Phe	His	Leu	Ser	
465					470					475					480	
ctc	ctc	acc	tgt	aaa	act	ggg	atc	cca	gta	tagacttttg	aaatcagtag					1490
Leu	Leu	Thr	Cys	Lys	Thr	Gly	Ile	Pro	Val							

485

490

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<210> 26  
<211> 490  
<212> PRT  
<213> Homo sapiens

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Glu Ile Val Cys Ala Cys Pro Thr Gln Pro Asp Lys Val Arg Lys Ile
          20          25          30
Leu Asp Leu Val Gln Ser Lys Gly Glu Glu Val Ser Glu Phe Phe Leu
          35          40          45
Tyr Leu Leu Gln Gln Leu Ala Asp Ala Tyr Val Asp Leu Arg Pro Trp
          50          55          60
Leu Leu Glu Ile Gly Phe Ser Pro Ser Leu Leu Thr Gln Ser Lys Val
65          70          75          80
Val Val Asn Thr Asp Pro Val Ser Arg Tyr Thr Gln Gln Leu Arg His
          85          90          95
His Leu Gly Arg Asp Ser Lys Phe Val Leu Cys Tyr Ala Gln Lys Glu
          100          105          110
Glu Leu Leu Leu Glu Glu Ile Tyr Met Asp Thr Ile Met Glu Leu Val
          115          120          125
Gly Phe Ser Asn Glu Ser Leu Gly Ser Leu Asn Ser Leu Ala Cys Leu
          130          135          140
Leu Asp His Thr Thr Gly Ile Leu Asn Glu Gln Gly Glu Thr Ile Phe
145          150          155          160
Ile Leu Gly Asp Ala Gly Val Gly Lys Ser Met Leu Leu Gln Arg Leu

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				165					170					175			
Gln	Ser	Leu	Trp	Ala	Thr	Gly	Arg	Leu	Asp	Ala	Gly	Val	Lys	Phe	Phe		
			180						185					190			
Phe	His	Phe	Arg	Cys	Arg	Met	Phe	Ser	Cys	Phe	Lys	Glu	Ser	Asp	Arg		
		195					200										
Leu	Cys	Leu	Gln	Asp	Leu	Leu	Phe	Lys	His	Tyr	Cys	Tyr	Pro	Glu	Arg		
	210					215					220						
Asp	Pro	Glu	Glu	Val	Phe	Ala	Phe	Leu	Leu	Arg	Phe	Pro	His	Val	Ala		
225					230					235					240		
Leu	Phe	Thr	Phe	Asp	Gly	Leu	Asp	Glu	Leu	His	Ser	Asp	Leu	Asp	Leu		
				245					250					255			
Ser	Arg	Val	Pro	Asp	Ser	Ser	Cys	Pro	Trp	Glu	Pro	Ala	His	Pro	Leu		
		260						265					270				
Val	Leu	Leu	Ala	Asn	Leu	Leu	Ser	Gly	Lys	Leu	Leu	Lys	Gly	Ala	Ser		
	275					280						285					
Lys	Leu	Leu	Thr	Ala	Arg	Thr	Gly	Ile	Glu	Val	Pro	Arg	Gln	Phe	Leu		
	290					295					300						
Arg	Lys	Lys	Val	Leu	Leu	Arg	Gly	Phe	Ser	Pro	Ser	His	Leu	Arg	Ala		
305					310					315					320		
Tyr	Ala	Arg	Arg	Met	Phe	Pro	Glu	Arg	Ala	Leu	Gln	Asp	Arg	Leu	Leu		
				325					330					335			
Ser	Gln	Leu	Glu	Ala	Asn	Pro	Asn	Leu	Cys	Ser	Leu	Cys	Ser	Val	Pro		
		340						345					350				
Leu	Phe	Cys	Trp	Ile	Ile	Phe	Arg	Cys	Phe	Gln	His	Phe	Arg	Ala	Ala		
		355					360					365					
Phe	Glu	Gly	Ser	Pro	Gln	Leu	Pro	Asp	Cys	Thr	Met	Thr	Leu	Thr	Asp		
	370					375					380						
Val	Phe	Leu	Leu	Val	Thr	Glu	Val	His	Leu	Asn	Arg	Met	Gln	Pro	Ser		
385					390					395					400		
Ser	Leu	Val	Gln	Arg	Asn	Thr	Arg	Ser	Pro	Val	Glu	Thr	Leu	His	Ala		
				405					410					415			
Gly	Arg	Asp	Thr	Leu	Cys	Ser	Leu	Gly	Gln	Val	Ala	His	Arg	Gly	Met		
		420						425					430				
Glu	Lys	Ser	Leu	Phe	Val	Phe	Thr	Gln	Glu	Glu	Val	Gln	Ala	Ser	Gly		
		435					440					445					
Leu	Gln	Glu	Arg	Asp	Met	Gln	Leu	Gly	Phe	Leu	Arg	Ala	Leu	Pro	Glu		
	450					455					460						
Leu	Gly	Pro	Gly	Gly	Asp	Gln	Gln	Ser	Tyr	Glu	Phe	Phe	His	Leu	Ser		
465					470					475					480		
Leu	Leu	Thr	Cys	Lys	Thr	Gly	Ile	Pro	Val								
				485					490								

&lt;210&gt; 27

&lt;211&gt; 1470

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 27

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gacagctcct gcccctggga gcctgcccac cccctgggtct tgctggccaa cctgctcagt 840
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cgccagttcc tgcggaagaa ggtgcttctc cggggcttct ccccagcca cctgcgcgcc 960
tatgccagga ggatgttccc cgagcggggc ctgcaggacc gcctgctgag ccagctggag 1020
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tgcttccagc acttccgtgc tgcctttgaa ggctcaccac agctgcccga ctgcacgatg 1140
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agcctgggtgc agcggaaacac acgcagccca gtggagaccc tccacgccgg ccgggacact 1260
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gctttgccgg agctggggcc cgggggtgac cagcagtcct atgagttttt ccacctcagc 1440
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<210> 28
<211> 74
<212> PRT
<213> Homo sapiens

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<400> 28
His Ala Ser Asp Leu Leu Lys Asn Asp Tyr Phe Ser Ala Glu Asp Ala
 1           5           10           15
Glu Ile Val Cys Ala Cys Pro Thr Gln Pro Asp Lys Val Arg Lys Ile
          20           25           30
Leu Asp Leu Val Gln Ser Lys Gly Glu Glu Val Ser Glu Phe Phe Leu
          35           40           45
Tyr Leu Leu Gln Gln Leu Ala Asp Ala Tyr Val Asp Leu Arg Pro Trp
          50           55           60
Leu Leu Glu Ile Gly Phe Ser Pro Ser Leu
65           70

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<210> 29
<211> 8
<212> PRT
<213> Homo sapiens

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<400> 29
Gly Asp Ala Gly Val Gly Lys Ser
 1           5

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<210> 30
<211> 5
<212> PRT
<213> Homo sapiens

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```

<400> 30
Leu Phe Thr Phe Asp
 1           5

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<210> 31
<211> 94
<212> PRT
<213> Homo sapiens

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&lt;400&gt; 31

Ala	Gln	Glu	Arg	Pro	Ser	Glu	Thr	Thr	Asp	Arg	Glu	Arg	Lys	Arg	Leu
1				5					10					15	
Val	Glu	Thr	Leu	Gln	Ala	Asp	Ser	Gly	Leu	Leu	Leu	Asp	Ala	Leu	Leu
			20					25					30		
Ala	Arg	Gly	Val	Leu	Thr	Gly	Pro	Glu	Tyr	Glu	Ala	Leu	Asp	Ala	Leu
		35				40						45			
Pro	Asp	Ala	Glu	Arg	Arg	Val	Arg	Arg	Leu	Leu	Leu	Leu	Val	Gln	Gly
	50					55						60			
Lys	Gly	Glu	Ala	Ala	Cys	Gln	Glu	Leu	Leu	Arg	Cys	Ala	Gln	Arg	Thr
65					70					75					80
Ala	Gly	Ala	Pro	Asp	Pro	Ala	Trp	Asp	Trp	Gln	His	Val	Gly		
				85					90						

&lt;210&gt; 32

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

Met	Ala	Ser	Asp	Asp	Leu	Ser	Leu	Ile	Arg	Lys	Asn	Arg	Met	Ala	Leu
1				5					10					15	
Phe	Gln	Gln	Leu	Thr	Cys	Val	Leu	Pro	Ile	Leu	Asp	Asn	Leu	Leu	Lys
			20					25					30		
Ala	Asn	Val	Thr	Asn	Lys	Gln	Glu	His	Asp	Ile	Ile	Lys	Gln	Lys	Thr
		35				40						45			
Gln	Ile	Pro	Leu	Gln	Ala	Arg	Glu	Leu	Ile	Asp	Thr	Ile	Trp	Val	Lys
	50					55					60				
Gly	Asn	Ala	Ala	Ala	Asn	Ile	Phe	Lys	Asn	Cys	Leu	Lys	Glu	Ile	Asp
65					70					75					80
Ser	Thr	Leu	Tyr	Lys	Asn	Leu	Phe	Val							
				85											

&lt;210&gt; 33

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 33

Lys	Glu	Ser	Asn	Asp	Leu	Leu	Leu	Ile	Arg	Lys	Asn	Arg	Met	Ala	Leu
1				5					10					15	
Phe	Gln	His	Leu	Thr	Cys	Val	Ile	Pro	Ile	Leu	Asp	Ser	Leu	Leu	Thr
			20					25					30		
Ala	Gly	Ile	Ile	Asn	Glu	Gln	Glu	His	Asp	Val	Ile	Lys	Gln	Lys	Thr
		35				40						45			
Gln	Thr	Ser	Leu	Gln	Ala	Arg	Glu	Leu	Ile	Asp	Thr	Ile	Leu	Val	Lys
	50					55					60				
Gly	Asn	Ile	Ala	Ala	Thr	Val	Phe	Arg	Asn	Ser	Leu	Gln	Glu	Ala	Glu
65					70					75					80
Ala	Val	Leu	Tyr	Glu	His	Leu	Phe	Val							
				85											

&lt;210&gt; 34

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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24

<210> 35  
<211> 18  
<212> DNA  
<213> Homo sapiens

<400> 35  
cctggtactt gcccctcc

18

<210> 36  
<211> 23  
<212> DNA  
<213> Homo sapiens

<400> 36  
tcgttaagcc cttgaagaca gtg

23

<210> 37  
<211> 30  
<212> DNA  
<213> Homo sapiens

<400> 37  
tcgttagccc ttgaagacca gtgagtgtag

30